AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. In the claim amendments, additions are denoted by underlining, and deletions are denoted by strikethroughs.

LISTING OF CLAIMS:

Claim 1 (withdrawn): A composition comprising an avian leptin receptor binding domain having an amino acid sequence SEQ ID NO: 8 bound in a complex to a leptin protein.

Claim 2 (withdrawn): The composition of Claim 1, wherein the avian leptin receptor binding domain is chicken leptin receptor binding domain.

Claim 3 (withdrawn): The composition of Claim 1, wherein the leptin protein is mammalian leptin.

Claim 4 (withdrawn): The composition of claim 3, wherein the mammalian leptin is selected from the group consisting of human, rat, mouse, ovine, porcine, and bovine leptin.

Claim 5 (withdrawn): The composition of Claim 3, wherein the avian leptin receptor binding domain is chicken leptin receptor binding domain and the mammalian leptin is human leptin.

Claim 6 (currently amended): A method for detecting a level of free leptin in a sample from an individual, comprising:

contacting the sample with ~~an avian~~ a chicken leptin receptor binding domain of SEQ ID NO:8 for a time sufficient to allow binding between the free leptin and the leptin receptor binding domain to form a bound complex, wherein said receptor binding domain is bound to a solid phase;

washing the solid phase with a first wash buffer;

contacting the solid phase with an antibody having binding specificity to leptin, wherein said antibody is coupled with a detectable label;

washing the solid phase with a second wash buffer; and

detecting said label remaining with said solid phase, thus detecting the level of free leptin in the sample.

Claim 7 (cancelled)

Claim 8 (original): The method of claim 6, wherein the individual is a mammal.

Claim 9 (original): The method of claim 8, wherein said mammal is human, rat, mouse, ovine, porcine, or bovine.

Claim 10 (original): The method of claim 6, wherein the sample is a human serum or plasma sample.

Claim 11 (original): The method of claim 6, wherein the individual has a condition or a disease related to the level of free leptin in the sample.

Claim 12 (original): The method of claim 6, wherein the solid phase is a micro-titre well plate.

Claim 13 (original): The method of Claim 6, wherein the detectable label is radiolabeled, chemiluminescent, electroluminescent, fluorescent, enzyme-labeled, or bioluminescent.

Claim 14 (currently amended): A kit for an assay of a level of free leptin in a sample from an individual, comprising:

~~an avian~~ a chicken leptin receptor binding domain comprising SEQ ID No. 8, wherein said domain is bound to a solid phase;

an antibody having binding specificity for leptin; and

a detectable label coupled with the antibody, wherein the free leptin in the sample binds to the avian leptin receptor binding domain and the antibody binds to the free leptin, thus allowing specific detection of the free leptin in the sample.

Claim 15 (cancelled)

Claim 16 (original): The kit of claim 14, wherein the individual is a mammal.

Claim 17 (original): The kit of claim 14, wherein said mammal is human, rat, mouse, ovine, porcine, or bovine.

Claim 18 (original): The kit of Claim 14, wherein the sample is a human serum or plasma sample.

Claim 19 (original): The kit of Claim 14, wherein the solid phase is a micro-titre well plate.

Claim 20 (original): The kit of Claim 14, wherein the detectable label is radiolabeled, chemiluminescent, electroluminescent, fluorescent, enzyme-labeled, or bioluminescent.

Claim 21 (withdrawn): A method of assaying a test compound for agonist or antagonist activity for the composition of claim 1, comprising:

a) measuring a level of interaction between the avian leptin receptor binding domain and the mammalian leptin in the absence of the test compound;

b) measuring a level of interaction between the avian leptin receptor binding domain and the mammalian leptin in the presence of the test compound;

wherein when the level measured in step b) is greater than the level in step a), the test compound has agonist activity, and wherein when the level measured in step b) is less than the level in step a), the test compound has antagonist activity.